



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/098,569	03/18/2002	Ryuji Biro	03500.016291	3198
5514	7590	07/28/2004	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			PADGETT, MARIANNE L	
			ART UNIT	PAPER NUMBER
			1762	

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

10/098,569

Applicant(s)

BIRO ET AL.

Examiner

Marianne L. Padgett

Art Unit

1762

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 01 July 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☒ they raise the issue of new matter (see Note below);
 - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet.

3. ☒ Applicant's reply has overcome the following rejection(s): See Continuation Sheet.
4. ☐ Newly proposed or amended claim(s) ____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: ____

Claim(s) objected to: ____

Claim(s) rejected: 7-8.

Claim(s) withdrawn from consideration: 1-6.

8. ☐ The drawing correction filed on ____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). ____
10. ☐ Other: ____

MARIANNE PADGETT
PRIMARY EXAMINER

Continuation of 2. NOTE: The proposed amendment to the specification does not correct the non-idiomatic English problems in the specification, but adds an unclearly supported definition for the non-idiomatic phrases. The sections of the specification cited for support are of unclear meaning due to their poor English, but nowhere in them do they appear to discuss anything resembling the proposed definition, which literally means that whatever you desire to deposit, if you have not supplied the correct components in the correct proportions, it is "stood short" or "come short". Furthermore it is unclear if this definition is intended to mean that if your desired deposit requires X atoms, only X-Y atoms have been supplied, i.e. an insufficient amount, or is trying to relate the phrase to the old and well known problem of a stoichiometric material, that when vaporized loses some of its more volatile component to deposit a nonstoichiometric material. Note that the "definition" in no way relates the "desired deposited film" to any source material, nor clarifies whether the atoms are insufficient in number or in ability to form the desired film.

Continuation of 3. Applicant's reply has overcome the following rejection(s): would correct the 112 problems of sections 3-4 of paper # 20031223, mailed 4/1/04, as they would remove the unsupported scattering limitation & correct the relationship between the F-source gas and plasma.

Continuation of 5. does NOT place the application in condition for allowance because: applicant's discussion of the reaction chamber being corrosion resistant, hence use of it for separate generation of the plasma preventing corrosion that would otherwise occur and cause deterioration (ie. presumably contamination & the like) of the thin film being deposited (p.6 of the 7/1/04 response), is not commensurate in scope to the claim limitations, hence irrelevant to the claims as written.

With respect to the translations of the applied Japanese references to Toku et al (ie. Akiyoshi Shin et al on the translation), the text supports the English abstracts, and also shows correspondence between apparatus and process used for oxide and fluoride deposits; notes that F₂ gas is highly reactive and toxic, so uses different F-source gases; and when supplying this F-gas directs it so that it is activated by the plasma beam and is thus better able to fulfill its function of compensating for F atoms lost from the vaporized material being deposited due to it being more activated than in the conventional configuration of figure 1. In JP3-75359, see claims 1 & 6, paragraph bridging p.4-5 + next paragraph, p.9, 11-12, 14 & figures. In JP3-75358, see claims 11-3, p. 5, 7-9, 12 & figures. Thus these references support the rejection as stated in the final rejection, mailed 4/1/04 & further motivate it by their discussion on the importance of activation and their comparison with oxide coating processes.